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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,032	02/03/2005	Erich Griessler	740116-532	6250

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EXAMINER
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BUI, BRYAN

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/511,032

Applicant(s)

GRIESSLER ET AL.

Examiner

Bryan Bui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 38-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-40, 43-45 and 47-61 is/are rejected.
- 7) ☒ Claim(s) 41, 42, 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/05&amp;10/05</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 48-61 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S.519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993).

A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Warmerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459. Nor can one patent "a novel and useful mathematical formula," Flook, 437 U.S. at 585, 198 USPQ at 195; electromagnetism or steam power, O'Reilly v. Morse, 56 U.S. (15 How.) 62, 113-114 (1853).

The claimed invention does not produce a tangible result. **It is unclear how the result is being stored, displayed and is conveyed to a user. The language should**

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**be added so that includes outputting/displaying, storing in the performing to convey to the user.**

In order to overcome the 101 Rejection, the claim invention should be providing a storing, displaying/outputting and the result is used in a tangible manner. The applicant should review the disclosure to determine what type of tangible result is being carried out in this instant application and such limitation to be included in the claim.

**Please view the new guidelines for 35 U.S.C. 101 in web site of OG notice.**

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

Applicant is reminded that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification."

Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonable allowed. This means that the words of the claim must be given their plain meaning. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). Further, the claims are interpreted in light of the

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specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 38-40, 43-45, 47-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Choe et al (US 6694285)

4. With respect to claim 38, Choe et al teach a vibration sensor for monitoring the state of rotating components or bearings comprising a sensor element; evaluation electronics, and at least one interface, wherein the evaluation electronics includes an analog-to-digital converter and a signal conditioning means (figure 8); and a display means with a display for displaying wherein the sensor element, the evaluation electronics, and the interface are located in a common housing (figure 8, block 149); wherein the signal conditioning means is adapted for receiving a plural of signals acquired by the sensor element and for converting the signals into a state value using

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signal analysis and a diagnostic algorithm and display is adapted for displaying the state value (figures 8, 12, column 15, line 52 to column 16, line 65).

5. With respect to claims 39-40, Choe et al teach at least one element for at least one of parameter input, setting boundary values and choosing an operating mode, and wherein the display comprises a color display, including green, yellow, and red color values, and wherein the control element can be locked or blocked mechanically and/or electronically (figure 8, block 149 and relating communicating module and mode adapted to operating).

6. With respect to claims 43-45, and 47, Choe et al teach at least one memory connected to the evaluation electronics, wherein at least one parameter values and boundary values are stored in the memory, and wherein the evaluation electronics has a self-learning logic, wherein a state value of a component or of a bearing with a highest degree of damage or poorest state value is at switching output (figures 8, 12, column 15, line 52 to column 16, line 65); sensor element located on a circuit board which has at least one rigid segment and at least one flexible segment, and the sensor element is mounted in the common housing near a mounting site of the vibration sensor having low attenuation (figure 8, column 6, lines 16+); and the common housing is substantially cuboidal and has a beveled top side, and display means is integrated in beveled top side (figure 1, 8, column 6, lines 1- 67). Noted that the material of metal/plastic and IP 65 degree of protection is a matter of choice. It is not patentability in the art technology.

With respect to claim 48, Choe et al teach method and apparatus for monitoring the state (condition/status) of rotating component or bearing with vibration sensor which has a sensor element and evaluation electronics (figure 8) comprising continuously or quasi-continuously acquiring signals with the sensor element (column 14, lines 1+); converting the signals into a state value reflective of the state of the monitored component or bearing using signal analysis and a diagnosis algorithm (column 15, line 52 to column 16, line 44), the signal analysis take place both in the time domain and also in the frequency domain, and computing dynamic quantitative averages and/or peak values the time domain (column 2, lines 48+).

With respect to claim 49, Choe et al teach performing the signal analysis based on FT, FFT or envelope curve Fast Fourier Transform (column 15, lines 52+).

With respect to claim 53, Choe et al teach subjecting at least one of characteristic values and the state value to plausibility checking so that measurement errors are recognized and do not lead to a faulty state value (column 14, lines 3+).

With respect to claim 54, Choe et al teach automatically computing the boundary values (margin limits/threshold value) in a teach-in mode (warning/normal/caution, etc) depending on the parameterization data and the current operating conditions (column 17, line 45 to column 18, line 56).

With respect to claims 55-56, Choe et al teach determining a response characteristic between the rotating component or the bearing and the vibration sensor at a start of monitoring of the state (column 13, line 66); feeding at least one defined pulse in a three dimensional vicinity of the rotating component or the bearing into a machine

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(figures 1, 8) and determining the response characteristic from a signal which has been measured by the vibration sensor (column 13, line 66 to column 14, line 59).

With respect to claim 57, Choe et al teach automatically generating the parameterization data from at least one of a graphic and tabular model description of the machine, components or bearing to be monitored (figure 12) and inputting the parameterization data via an input unit, including a computer pc (figure 12, column 15, lines 60+).

With respect to claim 58, Choe et al teach automatically matching the boundary values to a respective rpm (figure 8, vibration rpm and peak).

With respect to claim 59-60, Choe et al teach detecting and measuring the rpm, subjecting automatically detected and measured rpm to plausibility checking so that an error in the determination of the rpm can be detected and corrected (column 14, lines 3+); computing in the teach-in mode (warning/normal/caution, etc) the boundary values depending on the parameterization data at an operating rpm, and computing the boundary values at another rpm using self-learning evaluation logic (column 14, line 3 to column 15, line 23).

### ***Allowable Subject Matter***

7. Claims 41-42, 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. Claim 61 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcome the 101 rejection as set forth above.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan Bui whose telephone number is 571-272-2271.

The examiner can normally be reached on M-Th from 7am-4pm, and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BB

10/03/06

**BRYAN BUI**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'B. Bui', is written over the printed name and title.